

WW 2 Wireless & Radio Mechanics

By Cherub Log

In September 1939, Australia followed Britain and declared war on Germany. At that time, the impending hostilities were half a world away, and posed little threat to Australia. In December 1941 when the Japanese launched their assaults on nations bordering the Pacific Ocean, matters changed dramatically. Instead of being an aggressor in a conflict 12,000 miles away, Australians were faced with the task of defending their domain from attack by a powerful, fiercely aggressive, determined and very close invader.

Traditionally and for organisational purposes, the Navy had branches of Engineering, Gunnery, Navigation, Communications, Supply, Electrical and Medical. Within the Communications branch there were the visual signallers, colloquially called the "bunting tossers", and the Telegraphists, aka "sparkers". The Telegraphist's main role was to operate the wireless telegraphy equipment communicating by Morse Code. Their subsidiary role was to maintain the equipment, which in the immediate pre war days, was fairly simple.

The challenge to 12,000,000 Australians of defending their vast land area encompassed by about 4,000 miles of coast line, equipped with meagre and largely outdated defence technology was daunting. To meet the challenge, many initiatives such as accelerated recruitment into the three armed services and mobilisation of industry to support a war effort were implemented. In the total context of this scenario, one of the many initiatives was the creation of a new branch of the Royal Australian Navy, the Wireless Mechanic branch.

In the early 1940s, the Telegraphists quickly found that the demands on their time and skills to handle the substantial increase in wireless traffic, as well as to man and to implement a training program to meet the needs of the sudden big increase in recruits was becoming more difficult as each month passed. Coupled with this, there was a steadily increasing introduction of more technologically complex electronic equipment to the ships and shore establishments. It soon became clear that the maintenance role of the Telegraphist could not continue. To address this need, the new title of Wireless Mechanic was conceived late in 1941, and introduced to the RAN early in 1942 (CN0194/42 refers).

In order to turn this concept into reality, selected personnel were to be given a basic training course of 6 months duration at the Melbourne Technical College, later known as the Royal Melbourne Institute of Technology (RMIT). This basic training was followed by equipment training at the RAN shore establishments of HMAS Rushcutter and HMAS Watson in Sydney, and at HMAS Harman and the Belconnen Transmitting station, both in Canberra. A few of the selected personnel came from existing Naval ranks, but the majority were recruited from civilian life. These then became what we know today as the Hostilities Only Radio Mechanics (HO RMs).

Radio Direction Finding (RDF) was the name given initially to the very new and top secret device which could "see" targets over the horizon, and at night, by showing on special equipment the range in yards, and bearing

relative to the ship's head or to the compass. As well, for detecting aircraft, it -could show the angle of elevation necessary for training the anti aircraft guns. Various models of this technology were developed, and it logically fell to the Wireless Mechanic to instal and to maintain it. The title RDF was soon changed to that of RADAR, an acronym of Radio Direction and Ranging. As the title Wireless Mechanic was then no longer completely descriptive, the maintainers' title was changed to Radio Mechanic. The Radio Mechanic (RM) then became responsible for the satisfactory performance of all electronic equipment in his ship. This was quite a responsible task. This change occurred in 1943 (CNO 414/43 refers).

Within the space of 12 months intensive training, the RM had the responsibility of keeping all of a warship's Radar and communication equipment fully functional.

Typically, the recruits were in their early 20s, and had secondary school education to year 5 level. Good passes in mathematics and physics were preferred. There were exceptions such as an older recruit with a strong background in radio.

Following the mandatory medical examinations and probity checks, the new recruits spent their first six weeks in the Navy "square bashing" at HMAS Cerberus. Cerberus is a large Naval training establishment at Crib Point Victoria. Those six weeks instilled a sense of discipline in each recruit, and taught him some of the basics of Navy life. The recruit learnt how to wear and to look after his uniform correctly, how to carry out the various drill orders, and generally to understand the subtleties of Naval routine. The facetious homily of "If it moves, salute it; if it is stationary then polish it; but if it wont take polish, then paint it" was not too far from reality.

All RAN recruits had this initial indoctrination which was then followed by specialist training at the various schools within Cerberus. For example, the Telegraphists went to the Signal School, the Stokers went to the Engineering School and so on. However, the Radio Mechanics were drafted to HMAS Lonsdale, a shore establishment located at Port Melbourne. Lonsdale became their home for the next six months in that this is where they slept, washed and ironed their uniform clothes and ate most of their meals. Each Monday to Friday, having had breakfast, they would travel to the Melbourne Technical College, later Royal Melbourne Institute of Technology (RMIT) for instruction in electricitiy, and in radio transmission and reception. The travel distance was not far, perhaps 7 kilometres, and for the earlier classes was on the back of an open tray 3 ton truck. Passenger comfort and safety were given low priority. Some later classes had the luxury of travelling by tram.

Not all RMs were billeted at Lonsdale. There were occasions when the population exceeded the capacity for accommodation. On such occasions, some RMs were billeted out in private residences, such as their own home if they lived in Melbourne prior to enlistment.

What happened subsequent to the basic training depended upon two factors. One was the instructors' assessment of each student's potential,

and the other was the manpower needs. Most graduates were very keen to be given the training which would lead them to a sea going ship. However, there were a number of shore based manning requirements such as the Naval Transmitting Station at Belconnen Canberra, HMAS Melville in Darwin, HMAS Magnetic in Townsville. As well, the advanced training in Radar was carried out at HMAS Rushcutter, and later at HMAS Watson when that establishment was commissioned. So quite a few RMs missed the glamor and excitement of being front line to the enemy.

HO RMs were assigned to 194 ships and shore establishments between 1942 and the end of 1945. Of these, 122 were sea going vessels. It is estimated that 363 men qualified as RMs in the period January 1942 through August 1945.

In early 1945, the RAN recognised that with the imminent cessation of hostilities, most of the Hostilities Only (HO) sailors would be demobilised, potentially leaving the essential services unmanned. To address this eventuality, a recruiting program of 12 years continuous service was introduced later in 1945 for all branches of the service. This carried on for a number of years after.

A schedule of Radio Mechanics necessary to man the estimated post war Navy, dated 13 August 1945 and promoted by DTSR Captain Alan McNicol showed how critical the situation was deemed to be, with an estimate of just 5 serving members who would transfer to the permanent forces, leaving a shortage of 152. The schedule indicated that 101 of these 157 RMs would be destined to serve in the 54 naval vessels in commission at the time, 33 would serve in shore establishments and there would be a 'pool' of 14. He subsequently revised his estimate to 285. However, 8 months later on 25 April 1946, the CO of HMAS Watson, Commander Neil McKinnon, proposed a total of 171 RMs to man 36 ships and 11 shore establishments. This program called for a selective recruitment to achieve 15 classes at the rate of 8 classes per year. Class duration was to be 39 weeks (In fact it became 49 weeks).

Following recruit training at HMAS Cerberus, trainee RMs spent 6 months based at what was HMAS Torrens, Port Adelaide. Daily they would be transported to the then School of Mines, later to be absorbed into the University of South Australia, for basic training in electrical and electronic theory and practice. Graduates were then sent to HMAS Watson, Sydney for training in Radar or W/T equipment, according to the manning needs at the time. It was considered to be too onerous on the students to expect them to learn all of the W/T and Radar equipment at the time. So there was initial specialisation in W/T or Radar, with cross training a year or so later.

The first class commenced training at the School of Mines in January 1946, and the last class completed the initial training in April 1949. During this 40 months period, approximately 180 Radio Mechanics graduated from the School of Mines training program. Commander McKinnon's crystal gazing 3 years previously proved to be remarkably accurate.

Subsequently, the Radio Mechanic branch was folded in to the Electrical branch, and different conditions were introduced to meet the changing needs of the service.

